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(54) Title: FLAVIVIRUS FUSION INHIBITORS

(57) Abstract: The present invention relates to peptides and methods of inhibiting fusion between the virion envelope of Flaviviruses and membranes of the target cell, the process that delivers the viral genome into the cell cytoplasm. The invention provides for methods which employ peptides or peptide derivatives to inhibit Flavivirus:cell fusion. The present invention is based in part on the discovery that E1 envelope glycoprotein of hepaciviruses and E2 envelope glycoprotein of pestivirus have previously undescribed structures, truncated class II fusion proteins. The present invention provides peptides and methods of treatment and prophylaxis of diseases induced by Flaviviruses.